Shayan Huda Chowdhury

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EXPERIENCE

Data Coordinator & Analyst, a2i Programme, ICT Ministry/Cabinet Division/UNDP Bangladesh   March 2020 – present

Developing tools for COVID-19 data collection and modeling its spread to inform policy decisions and combat its effects in Bangladesh. Since the first reported cases, worked with the Institute of Epidemiology Disease Control and Research (IEDCR) under the Ministry of Health, along with international epidemiologist and data scientist teams to facilitate and analyze self-reported syndromic data, testing and positive case data, hospital data, etc. Now coordinating with UK and US university researchers using epidemiological indicators for local administrators, policymakers, and government officials.

Executive Director & Co-founder, Reach4Help   March 2020 – present

Leading Reach4Help, a nonprofit dedicated to unifying access to volunteer help worldwide. Managing a team of developers, designers and marketers to build an open-source platform connecting people in need with volunteers who can help through the COVID-19 pandemic and beyond. Collaborating with volunteer organizations like AIESEC in Europe and the House of Good Deeds in NYC, amassing over 300 volunteers in 25 countries worldwide supporting food banks, charity events and day-to-day services for communities in need.

Software Developer, Migrant Nation Foundation, The Netherlands   December 2019 – present

Developing a pioneering "Right to Work" e-Commerce marketplace for Rohingya refugees with a team in Bangladesh to enable them to produce and sell products to consumers worldwide. To uphold decent work practices, built an app currently being used in the camps to automate calculating hourly wages by scanning refugees' UNHCR ID cards. Now working on integration with various multi-channel e-commerce and digital freelancing work platforms.

Research Intern, Frank Lab: Nobel Laureate Joachim Frank, Columbia University, New York, NY   September 2018 – November 2019

Created the highest resolution 3D construction of 40S eukaryotic ribosome subunit to help understand the mechanism and various factors of protein synthesis, moving us closer to finding a cure for cancer and viruses that rely on a host. Work involved data science and bioinformatics to build tools and applications for protein image processing. Final project was enhancing a suite of machine learning tools by automating generation of ground truth electron microscope images to optimize a time-consuming manual process and increase accuracy of particle detection.

Team Leader, Google Mentorship Program, Google, New York, NY   October 2018 – June 2019

Led a Stuyvesant HS team working on machine learning to understand and emulate human emotions from voice intonations using RNNs and GANs to develop Digital Personal Assistants for administrative use, medical applications, speech disability, among others.

Research Intern, New York Genome Center and Weill Cornell Medical College, New York, NY   June 2017 – February 2019

Selected by Stand Up to Cancer Program for research internship to study evolution of cancer at the genetic level by analyzing large volumes of binary methylation data with complex algorithms to determine the differences between cancerous and non-cancerous cells. Authored a research paper for the Regeneron Science Talent Search competition.

Intern, Herbert Irving Cancer Center, Columbia University College of Physicians and Surgeons, New York, NY   June 2016 – June 2018

As a member of cancer demography research team, developed awareness videos on chemoprevention to prevent breast cancer in multi-ethnic women, supported team with data analysis using relational databases. Trained on legal and confidentiality issues of Human Subjects Research.

RESEARCH PAPERS

- "Participatory syndromic surveillance as a tool for tracking COVID-19 in Bangladesh" a2i Programme, September 2020
- "Characterizing Noise in Whole Genome Cell-Free DNA Analysis" New York Genome Center, November 2018
- "The Effects of Epigenetic Modifiers on the Landscape of Hematopoietic Differentiation" New York Genome Center, January 2018
- "Usability Testing of a Web-Based Decision Aid for Breast Cancer Risk Assessment Among Multi-Ethnic Women" Herbert Irving Comprehensive Cancer Center, College of Physicians and Surgeons, Columbia University, January 2017

HONORS AND AWARDS

- AP Scholar with Distinction   Awardee 2019
- Gates Scholarship   Finalist 2019
- Bezos Scholars Program   Finalist 2018
- MIT INSPIRE: "Differences in Short-term Memory Capacities in Alzheimer's Patients with Different Demographics."   Semi-finalist 2018
- New York State Science and Technology Entry Program Conference, Albany, NY   3rd Prize 2015, 2nd Prize 2016, 1st Prize 2017
- Young Doctors Competition, Columbia University College of Physicians and Surgeons, NY   2nd Prize 2014, 1st Prize 2015
- National Latin Examination, National Junior Classical League   Silver 2016, Gold 2017, Silver 2018, Silver 2019

EDUCATION Stuyvesant High School, New York, NY   Graduation: June 2019

Scholarships: Daniel Bergstein Memorial Scholarship 2019, Elizabeth Piper Scholarship 2018
City University of New York: College Biology (BIOL 106 – 2nd Semester), Principles of Microeconomics (ECO 10250 – Macaulay Honors)   2019
Columbia University: Sci of Psychology (INSPN0160-61), Double Discovery Ctr, State Enrichment Prog (Coll of Phys & Surgeons)   2015-2019
Cornell University Weill Cornell Medical College: Health Professions Exposure Program (HPREP) - Student National Medical Association   2018
Harvard University Summer School: Foundation of Neuroscience (BIOS-50)   2018

SKILLS AND INTERESTS

- *Clubs and Societies:*   President of Research Club, National Latin Honor Society, Stuyvesant Alumni Mentoring Program
- *Language/Skills:*   English & Bengali (fluent), Latin (int.), Spanish (beg.), Music Composition, Spartans Wrestling Team, Tae Kwon Do
- *Community Service:*   Volunteer for clothes drives, soup kitchens and helping senior citizens with technology at Broadway Community.